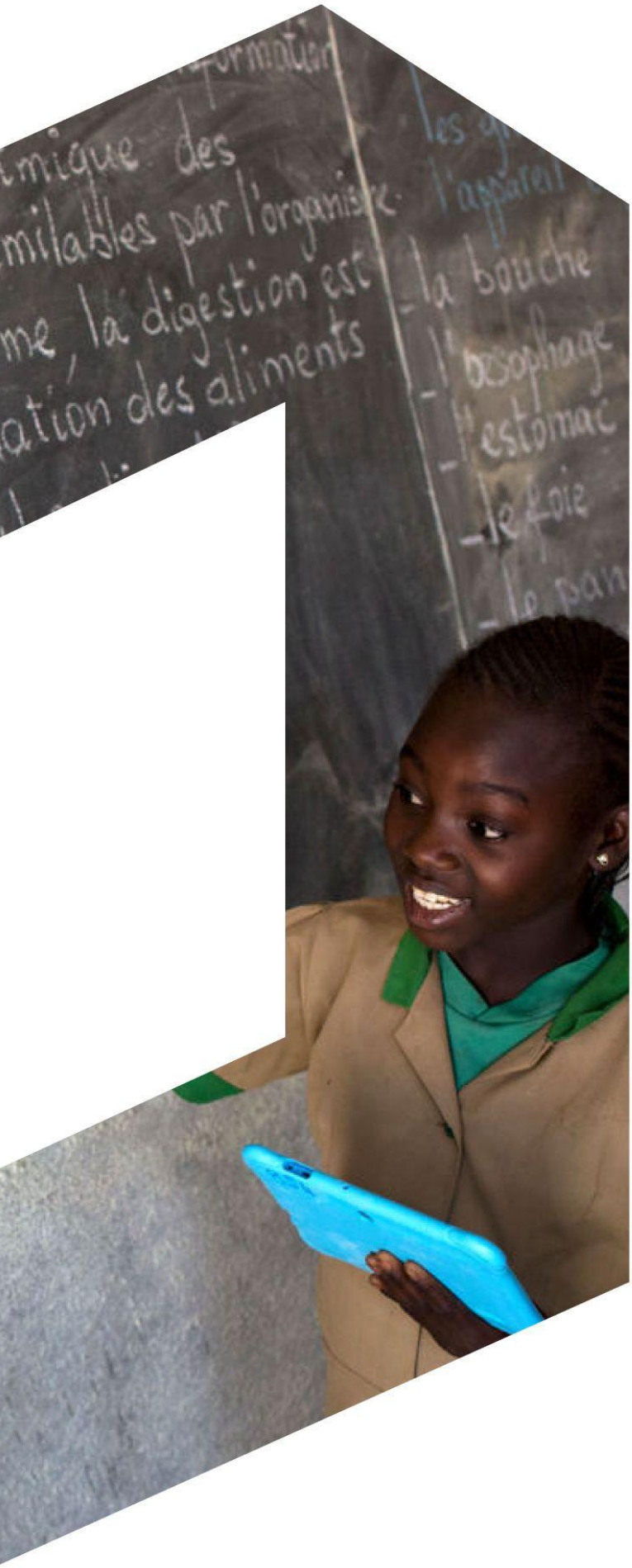

Digital Public Goods Alliance

2021 Annual Report

Reviewing a year of digital public goods

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Established in 2019, the Digital Public Goods Alliance is a multi-stakeholder initiative with a mission to accelerate the attainment of the sustainable development goals in low- and middle-income countries by facilitating the discovery, development, use of, and investment in digital public goods. To learn more, visit digitalpublicgoods.net or contact hello@digitalpublicgoods.net.

Digital public goods are open-source software, open data, open AI models, open standards and open content that adhere to privacy and other applicable laws and best practices, do no harm by design, and help attain the SDGs.

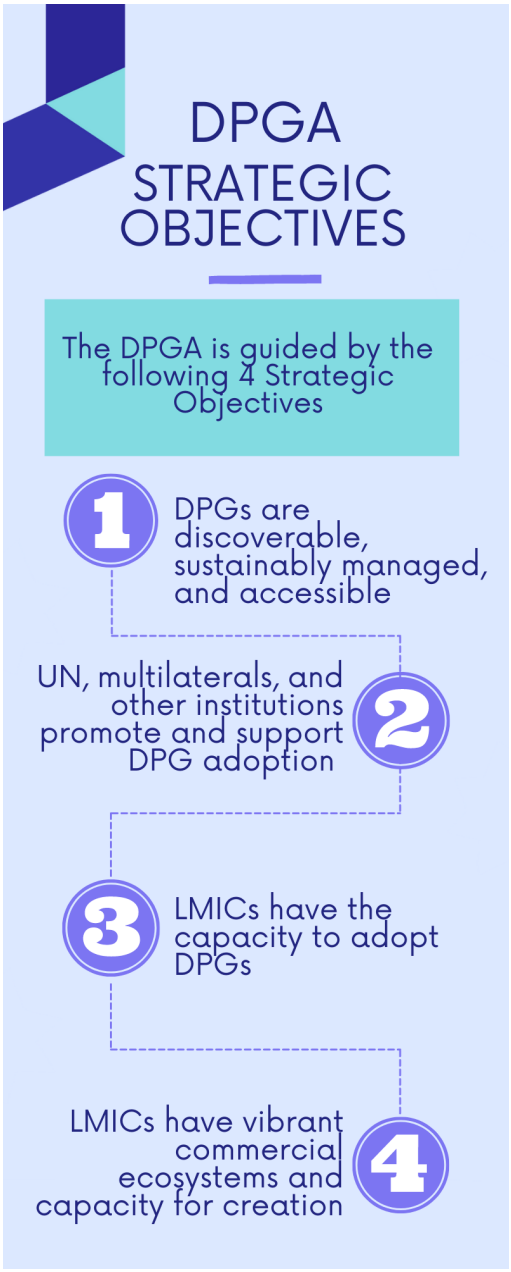
Many individuals and organisations generously contributed insights, shared lessons, and highlighted reports, data, and more to this report.

Cover photo credit: UNICEF/UN0143477/Prinsloo. Subsequent photos in this report are accredited alongside the picture.

The report was written and compiled by the Digital Public Goods Alliance Secretariat.

Introduction

2021 has been a year where digital public goods (DPGs) have become a critical part of the world's "toolkit" for meeting continued and emerging challenges. High-quality, open-source digital solutions have been front and centre throughout both pandemic responses, and in the move towards recovery. From providing remote access to learning opportunities and resources, to paying out and distributing social benefits, to the race to not only create but distribute vaccines and provide certificates to those who are vaccinated, we have seen firsthand how digital public goods can enable governments to swiftly respond to immediate health and social protection needs.



Throughout 2021, the Digital Public Goods Alliance (DPGA) has evolved into a global network with rapidly expanding formal memberships and a large group of stakeholders involved in activities to advance digital public goods. The DPGA segments their work into three categories: **core activities** which are driven wholly by the DPGA Secretariat; **coordinated activities** driven by stakeholders in partnership or close coordination with the DPGA Secretariat; and **aligned activities** driven by stakeholders in alignment with DPG strategic objectives, but independent of the DPGA Secretariat. The common goal shared by all is to accelerate attainment of the sustainable development goals in low- and middle-income countries by facilitating the discovery, development, use of, and investment in digital public goods.

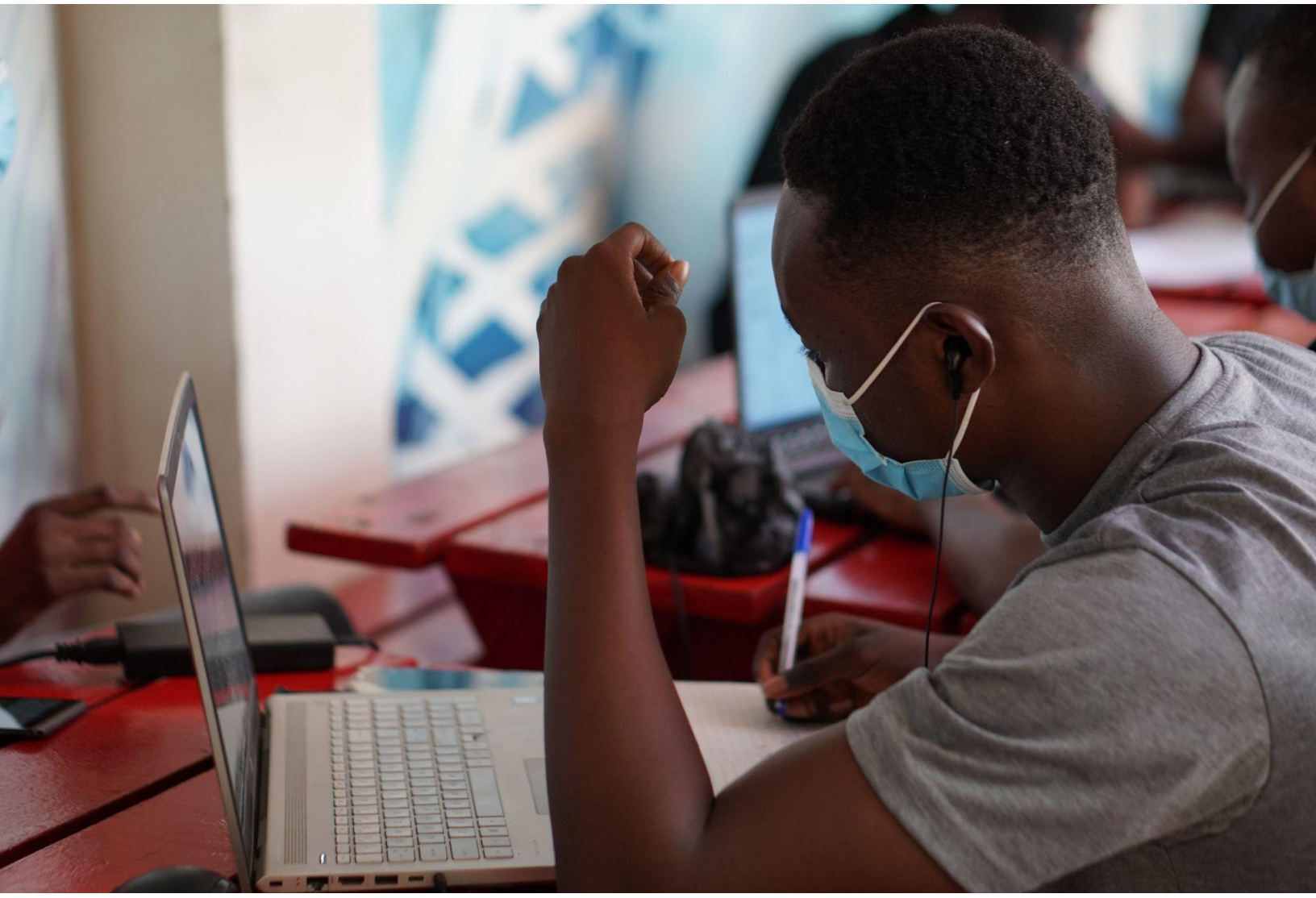
In August, the DPGA launched a five-year strategy which articulates four main objectives relevant to that goal (see infographic opposite). Governments, industry, the UN, civil society, and others are working collaboratively towards those four objectives via coordinated and aligned activities, which will continue to guide the DPGA throughout the next several years.

The DPGA Secretariat, which manages the day to day functions of the DPGA, launched the DPG Roadmap as a framework to track activities across the digital public goods ecosystem that are significant for attainment of the strategic objectives. The roadmap tracks the ongoing core, coordinated and aligned activities in the

DPG ecosystem. Collectively, this work represents a vision for the digital public goods ecosystem and provides insight into what DPGs can accomplish.

In addition to the activities listed in the roadmap, there are many other ongoing activities that are well-aligned with DPGA objectives. In this report we have sought to include those efforts as well to better showcase the momentum that exists, and to help others coordinate and align their work. We do not have full visibility of the ecosystem, and there will be many important stakeholders and activities not captured in this report that we hope to engage in 2022.

Looking ahead to 2022, we will continue to work collaboratively and transparently to pursue the strategic objectives through a variety of core, coordinated and aligned activities throughout the DPG ecosystem. We invite you to join us!



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01 Update on the Digital Public Goods Alliance's Core Activities

Secretariat Year in Review

The Digital Public Goods Alliance Secretariat works to identify, inspire, and coordinate efforts across the digital public goods ecosystem, and to help increase impact towards the DPGA strategy objectives. It operates in a transparent and participatory manner that mirrors its commitment to open source, including stewardship of foundational components of and for the DPG ecosystem. These core components include the DPG Standard and DPG Registry, in addition to facilitating Communities of Practices that highlight sector specific DPGs that can meet critical development needs. The Secretariat also leads advocacy efforts that include mobilising and aligning funding for existing mechanisms, and supporting the creation of new financing mechanisms to fill gaps in the DPG ecosystem.

Over the last year, the Digital Public Goods Alliance Secretariat has made advances, particularly in regards to the DPGA's governance model and membership growth, increasing public understanding of DPGs through advocacy and participation in key events, DPG Roadmap tracking and participation continued stewardship of the DPG Standard and DPG Registry, and supporting funding and resource mobilisation. Here, we share insight on the efforts of the DPGA Secretariat in 2021.

Governance

The Digital Public Goods Alliance was co-founded in 2019 by the Government of Norway; the Government of Sierra Leone; the Indian Software Product Industry RoundTable (iSPIRT); and UNICEF. This group comprised the interim strategy group (ISG),a strategic decision-making and oversight body to provide interim leadership for the DPGA Secretariat while a long term governance structure was established.

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In 2021, the ISG decided to expand and evolve the leadership of the DPGA. Beginning in January 2022, the governance and oversight of the DPGA will be done by a Governance Board that will include the four co-founding members of the DPGA as well as the German Federal Ministry for Economic Cooperation and Development (BMZ) and the United Nations Development Programme (UNDP). Each organisational board member brings particular strengths related to the DPG ecosystem and undertakes activities that meaningfully support the strategic objectives of the DPGA.

Advocacy

Global understanding, development, maintenance, and adoption of digital public goods requires widespread collaboration. This past year, the DPGA undertook advocacy work that brought together the perspectives of individuals and organisations from around the world, and contributed to important convenings to help ensure that the full potential of DPGs are realised. The principles of the DPGA's advocacy efforts are simple: facilitate, create,

and share common understandings, reduce fragmentation and duplication, and mobilise the resources and learnings needed to make digital public good deployments in low- and middle-income countries a success.

Advocacy efforts included participation in the 17 Rooms process led by the Brookings Institution and Rockefeller Foundation which brings together leaders to spur actions and commitments required for the sustainable development goals to become a reality. Specifically, the DPGA co-facilitated Room 9 focusing on infrastructure, industrialisation and innovation that resulted in the release of *Co-Develop: Digital Public Infrastructure for an Equitable Recovery* authored by the DPGA, Rockefeller Foundation and the Norwegian Ministry of Foreign Affairs. Part of this effort will inform sustainable funding models that the DPGA is coordinating and mobilising to help ensure DPGs have the resources required for long term success and maximum benefit.

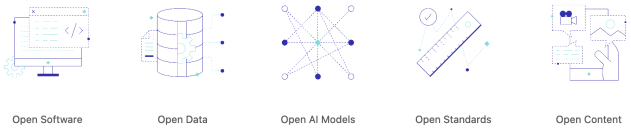
In order to promote the benefits of DPGs, the DPGA also convened and spoke about DPGs at events including two UN General Assembly side events, Tech for Democracy hosted by Denmark's Ministry of Foreign Affairs, the Internet Governance Forum, Tallinn Digital Summit, ID4Africa Livecasts and more.

Throughout the year the DPGA hosted regular DPI/DPG Roundtable discussions for product owners of DPGs that serve as digital public infrastructure to make connections, surface challenges, and help inform what ecosystem conditions can be established to best support DPGs. This work is complemented by pathfinding pilots which are activities led by DPGA members in direct cooperation with, or with the endorsement of, a relevant government entity to build local capacity for the creation of new DPGs and/or to support local adaptation or implementation of existing DPGs. Pathfinding pilots are tailored to the needs of a country and/or region, and help define use cases, identify needs, inform adaptations, and enable policy frameworks. In 2021, pathfinding pilots took place in more than 15 countries including; Eswatini, The Gambia, Ghana, Jordan Kazakhstan, Kyrgyzstan, Morocco, Niger, The Philippines, Sierra Leone, Sir Lanka, Uganda, Uzbekistan, Vietnam, and with the Organisation of Eastern Caribbean States (OECS).

Digital Public Goods Standard and Registry

As the steward of the definition of digital public goods, the DPG Standard, and DPG Registry, the DPGA is providing strategic infrastructure for the digital public goods ecosystem.

The Digital Public Goods Standard is a set of specifications and guidelines designed to maximise consensus about whether a digital solution conforms to the definition of a digital public good: open-source software, open data, open AI models, open standards, and open content that adhere to privacy and other



applicable best practices, do no harm by design and are of high relevance for attainment of the United Nations 2030 Sustainable Development Goals (SDGs). This definition stems from the UN Secretary-General's Roadmap for Digital Cooperation.

The DPG Standard establishes the baseline requirements that must be met in order to earn recognition as a DPG. This standard is designed to complement other relevant principles such as the Principles for Digital Development and is applicable to DPGs in all sectors across the SDGs. The DPG Standard is itself an open project, open to contribution on GitHub, and

developed in collaboration with organisations and experts.

The DPG Registry is a collection of both nominations and digital public goods, where nominating is the first step towards being recognised as a digital public good. Once a nomination is submitted, it undergoes a technical review against the DPG Standard and, if it passes the review, it becomes both recognised as a digital public good and discoverable on the DPG Registry. The DPG Registry at the time of this writing includes 75 digital public goods including many notable digital solutions that are helping to achieve the SDGs globally.

Additionally, thanks to the technical leadership of UNICEF's Office of Innovation, in 2021 the DPGA released an Application Programming Interface (API) for digital public goods to further embrace transparency and our open-source values by allowing individuals to gain perspective to the backend of the DPG Registry, and therefore the review process as a whole.

Roadmap

One of the key successes of the DPGA Secretariat over the last year has been bringing together key partners in creating the DPG Roadmap, a public visualisation of the core, coordinated and aligned activities undertaken by organisations working to advance digital public goods. Organisations that participate in the annual roadmap work collaboratively, transparently monitor activities, and share updates with others working in this space.

At the end of 2021, the DPG Roadmap includes 15 organisations including governments, private tech companies, think tanks, nonprofits and multilateral institutions.

From UNICEF's efforts to support open-source projects and develop strong business models, to GitHub's efforts to increase the visibility of DPGs, to Sierra Leone's work creating and managing new DPGs and sharing lessons with other low- and middle-income countries, the roadmap exemplifies the enormous potential of digital public goods and the importance of making technology open and widely available for adoption and reuse.

For a full list of DPG Roadmap activities, or to submit activities for consideration to the roadmap, visit our website.

DPGA Membership in 2021

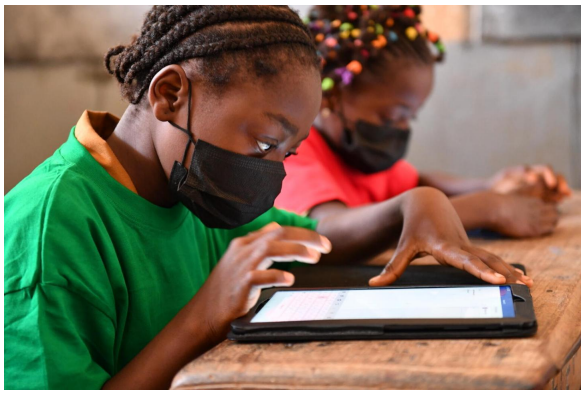
The DPGA is comprised of organisations aligned around a shared vision for digital cooperation and a commitment to working collaboratively to support digital public goods. Organisations that participate in the roadmap may formalise their participation and collaboration with the DPGA by becoming DPGA Members which entails: fulfilling all criteria for roadmap participation; advocating on behalf of the DPGA via relevant events; publishing and producing work that supports the DPGA's mission and strategic objectives; and actively seek to coordinate and align DPGA-relevant activities with other members through various channels of collaboration.

In 2021, the DPGA was thrilled to welcome the following organisations as members: BMZ; GitHub; eGov Foundation; The Office of the Secretary-General's Envoy on Technology; Omidyar Network, UNDP; and UN Global Pulse. As the year comes to a close, we are in communication with additional organisations and looking forward to welcoming them in the months ahead.

DPGA Communities of Practice

Communities of Practice (CoPs) are groups of experts who convene to support the discovery, assessment, and advancement of digital public goods with high potential for addressing critical development needs and responding to urgent challenges.

CoPs are a means of bringing together experts from organisations that are engaged in work related to a given topic, leveraging years of experience while simultaneously facilitating dialogue and alignment across these institutions and their networks.



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All CoPs are convened in collaboration with co-chairing organisations that have extensive sector-relevant knowledge, and each CoP scopes and defines a particular focus area based on inputs from multilateral organisations, non-governmental organisations, think tanks, government institutions, and other stakeholders in the DPG ecosystem. The purpose of this process is to highlight digital public goods that can meet particular high priority needs. Based on input and feedback from CoP members, the DPGA releases reports highlighting DPGs that have high impact potential for that area of focus.

In 2021, Communities of Practice were convened in areas that mirrored critical global needs including health, financial inclusion, climate change adaptation and GovStack (still ongoing).

Highlighted DPGs

Health: Immunization Delivery Management

In May of 2020, the United Nations Secretary-General called for COVID-19 vaccines to be considered global public goods. As has been highlighted throughout the waves of the pandemic, accessibility of vaccines is vital to ensuring that no country is left behind in the fight against COVID-19. For vaccines to quickly get to those that need them most, the DPGA called for digital solutions for immunization delivery management to be made available as digital public goods. The DPGA Health Community of Practice, co-chaired by UNICEF, released a report which included a list of solutions that are both digital public goods and global goods of high relevance for immunization delivery management. This report specifically highlighted 13 digital public goods. They are: CommCare; DHIS2; DIVOC; Global HealthSites Mapping Project digital solution (Healthsites.io); GOFR; KoBoToolbox; Community Health Toolkit; mHero; ODK; OpenMRS; OpenSRP; RapidPro; and SORMAS. To learn more about this CoP's success, read the *DPG Spotlight* on page 21.

At the end of 2021, the DPGA Health Community of Practice also launched a new Health CoP that will focus on DPGs of high relevance to telemedicine, telehealth and virtual care.

Climate Change Adaptation: Climate & Weather Services (2022)

Underscored by the IPCC 2021 Working Group I report, the Physical Science Basis of Climate Change, there is an urgent need to combat and mitigate the devastating impacts of climate change. However, it is clear that the availability and dissemination of high-quality data is a hindrance for making informed decisions and stifling technical innovation, including the development of digital solutions with the potential to address critical climate change adaptation needs, particularly in least developed countries (LDCs). This is the reason the Climate Change Adaptation CoP is exploring the need for more open data. This comprises Earth system data, which includes both observations and model data used for monitoring and prediction of the climate system and its components. Doing so can help inform policymakers with the information needed to make critical decisions as well as power the digital solutions and DPGs needed for adaptation efforts to succeed. In 2022, the DPGA will release the Climate Change Adaptation CoP highlighting DPGs that produce and utilise open datasets relevant to weather and climate information services.

Following this, the next iteration of the DPGA CoP for Climate Change Adaptation will begin exploring DPGs relevant to food security and climate change.

Financial Inclusion: Digital Public Infrastructure

Financial inclusion is a key step towards enabling attainment of numerous sustainable development goals while also specifically driving greater economic growth. As the global community corrals around finding solutions that will assist countries in their efforts to build back better after the COVID-19 pandemic, fostering greater financial inclusion will be key. In June, the DPGA Community of Practice for Financial Inclusion, co-chaired by iSPIRT, released a report highlighting DPGs specifically for their relevance to facilitating inclusive financial workflows at scale and enabling other solutions as digital public infrastructure (DPI) which refers to digital solutions that enable basic cross-sectoral functions essential for public and private service delivery such as data transfer or payments. Six digital public goods were highlighted in the report: Apache Fineract; Mifos; Mojaloop; MOSIP; OpenCRVS; and X-Road.

Thank you to all the organisations that participated in DPGA Communities of Practice that concluded in 2021:

Africa Law Tech, Asia ehealth Information Network (AeHIN), Bank for International Settlements (BIS), Better than Cash Alliance, Bill & Melinda Gates Foundation, Centers for Disease Control and Prevention (CDC), CGAP, Digital Impact Alliance (DIAL), German Agency for International Cooperation (GIZ), Gitcoin, Food and Agriculture Organization (FAO), Health Enabled, Interac Corp, International Telecommunications Union (ITU), iSPIRT, Jembi Health Systems, John Hopkins, PATH, MET Norway, Namati, New Legacy Digital, New York Department of Financial Services, Norwegian Agency for Development (Norad), NORCE Climate, Omidyar Network, Open Society Foundation, Rockefeller Foundation, Sri Sathya Sai Central Trust, TomorrowNow.org, UN Capital Development Fund (UNCDF), United Nations Environment Programme (UNEP), UN Global Pulse, UNICEF, USAID, World Bank, World Food Programme (WFP), World Health Organization (WHO), World Meteorological Organization (WMO)

02 2021: Around the DPG Ecosystem

Throughout 2021, we've seen an increasing and diverse number of organisations undertaking activities advancing DPGs. Below we highlight the work of organisations who engaged with the DPGA this year as members or stakeholders, and whose activities are contributing significantly to attainment of the four DPGA strategic objectives. We recognise that there are certainly organisations and activities we were unable to capture in this report, and will strive to expand this analysis year after year to present a more complete view of the DPG ecosystem.

Bill & Melinda Gates Foundation

The Bill & Melinda Gates Foundation believes that governments should not have to rely exclusively on proprietary software as they seek to build digital infrastructure, such as national payment, health, and identity systems. If countries can reference world class digital public goods, they'll be better equipped to select the technology that meets their country's needs. To that end, the foundation has invested in several digital public goods, including DIVOC, DHIS2, CommCare, Mojaloop, and MOSIP, in addition to Digital Square which invests in a range of digital health DPGs. The Gates Foundation also supports several technical assistance facilities which support countries as they seek to implement digital public goods and digital public infrastructure more broadly. These include the World Bank ID4D initiative, the World Bank G2PX initiative, Africa Nenda, and the Data Use Partnership. They also support the Digital Impact Alliance (DIAL), which works across digital verticals to support digital development more broadly.

This year, their work on digital public goods included:

- Providing flexible funding for implementing core features in DHIS2 and CommCare. Those platforms were able to rapidly adapt for COVID-19 response in over 50 countries;
- Supporting the Philippines launch and scale of a national ID system based on the MOSIP DPG code library;
- The World Bank G2Px program providing technical assistance to 34 countries on technical design and implementation of digital G2P payments and the enabling infrastructures and ecosystem; and
- The launch of Africa Nenda – a technical assistance facility which aims to support African central banks as they seek to build more secure, inclusive, and interoperable national payment systems.

Digital Impact Alliance (DIAL)

The Digital Impact Alliance (DIAL) is a "think, do, replicate" tank that combines practical research with evidence-based advocacy to advance digital inclusion. In 2021, DIAL approved a new five-year strategy, Digital Beacons, that includes support for country-wide implementations of digital public goods and services. By connecting, supporting, and scaling DPGs, DIAL helps development actors identify digital and data products best suited to their needs. In 2021, this work included improving the user experience design of DIAL's Catalog of Digital Solutions which features DPGs, and expanding the database to include data from GIZ, WHO and New America, adding 170 products and 3200 projects to the repository; launching the "GovStack" initiative with the ITU, and the Governments of Estonia and Germany, which will provide countries with a model of how to build efficient, whole-of-government enterprise architectures utilising reusable software components called "building blocks"; and strengthening digital public goods through DIAL's Open Source Center (OSC) which advises business model sustainability, community

governance and enterprise architecture. Further, the OSC team engages in thought leadership around the importance of DPGs, and advocates for continued improvements in financing, coordination, and cooperation across donors and other development actors in the DPG space.

Claudette Bleijenberg - Unsplash

In 2022, DIAL will continue to implement its Digital Beacons strategy and build on the successes of the past year. Among other activities, this will include deepening and expanding work with the Government of Sierra Leone; exploring the possibility of broadening work to other countries throughout Africa; testing a number of key policy products in the field; and moving into formal implementation of the GovStack initiative.

Digital Square at PATH

Digital Square at PATH works with ministries of health and developers of open-source health technologies to align adaptable, interoperable digital health technologies with local health needs. As part of this work, Digital Square promotes and supports digital public goods for health through its digital health "global goods" program. Digital Health global goods are existing, community developed tools that can be used across different health program verticals. These tools are a subset of DPGs; they are software, content, or services that are focused on health and have been vetted and approved through community-supported open application processes.

In the last year, Digital Square and the DPGA developed a paper explaining the relationship between digital public goods and global goods in the context of digital health, and continue to work together to enhance framing and jointly grow DPGs for health. Digital Square has advised on standards development and technical ecosystem design. This includes providing technical assistance to the World Health Organization in development of SMART Guidelines and Digital Adaptation Kits (DAKs), which are software-neutral, operational, and structured documentation to inform the design of country digital systems. This year, Digital Square supported the development of a family planning DAK and digital certificates for COVID-19 vaccination status and supported alignment of investments to support technical partners. Digital Square also supported country-led priorities through investments into digital public goods for health that support these efforts, as well as with technical support to the development of the DAKs and COVID-19 certificates.

eGov Foundation

eGov Foundation is a mission-driven non-profit fueled by the belief that every person should be able to access services from their government with ease, security, and transparency. They build DPGs and digital public infrastructure (DPI) for governance and development impact. They also work with policy stakeholders to create an enabling public policy environment, and engage with stakeholders across industry, academia and civil society to ensure the DPGs they create are effectively leveraged to drive development outcomes. In their work, they recognise that achieving the SDGs at scale across the Global South requires the acceleration and simplification that a combination of digital and non-digital public goods can provide.

eGov's DIGIT platform - a DPG for urban governance and service delivery - will form the basis of the National Urban Governance Platform, which will be offered to state governments under NUDM. DIGIT is already being used across the country.

eGov has also begun building a DPI for sanitation (DISHHA), the first step of which is creating a DPG for fecal sludge management (FSM). This future DPG is being piloted in the Indian State of Odisha, with support from the Bill & Melinda Gates Foundation. They've also started to design and build a platform (iFIX) to improve fund and information flows for public financial management, and will explore this becoming a DPG.

DIVOC, an initiative of eGov Foundation and a DPG, is an open-source digital platform for large-scale digital vaccination, verifiable credentials, and public health programs, built for scale in India, and addresses other future vaccination scenarios, digital credentialing, and beyond. It has already been used to generate over 1 billion secure and verifiable vaccination test certificates for COVID-19 in India, Sri Lanka and Philippines. The eGov Foundation is supporting governments in Jamaica and Indonesia to roll out COVID-19 vaccine certificates using DIVOC.

Food and Agriculture Organization (FAO)

The new Strategic Framework of the Food and Agriculture Organization (FAO) seeks to support the 2030 Agenda through the transformation to MORE efficient, inclusive, resilient and sustainable agri-food systems for better production, better nutrition, a better environment, and a better life, leaving no one behind.

This includes four cross-cutting/cross-sectional accelerators; technology, innovation, data, and complements (governance, human capital, and institutions) in all its programmatic interventions to accelerate impact while minimising trade-offs. In addition, this includes an increased focus on Digital Agriculture via the support for digital public goods such as Open Foris, the Hand-in-Hand Geospatial Platform and WaPOR as well as the ongoing development of the International Platform for Digital Food and Agriculture. FAO has also been an active participant in the DPGA's Climate Change Adaptation Community of Practice contributing to the discovery, assessment, and advancement of digital public goods for weather and climate information services.

Furthermore, FAO has created the FAO Digital Portfolio, a global catalogue of more than 250 FAO digital products including a growing number of digital public goods, supporting the work of the Organization in the field through empowering digital capabilities to support farmers by transforming mobile phones into new agricultural tools.

FAO also maintains the FAO Digital Services Portfolio, a digital public good and cloud-based platform, established to offer information and advisory services to the farmers in the field and connect governments directly to farmers.

In 2022, FAO anticipates continuing to work closely with the DPGA through the communities of practice and by championing more digital public goods.

GitHub

GitHub is the developer company, making it easier for developers to be developers: to work together, to solve challenging problems, and to create the world's most important technologies. Their Social Impact team empowers nonprofits and the greater social sector to drive positive and lasting contributions using GitHub products, brand, and employees. As a member of the DPGA, GitHub brings a unique perspective derived from their deep connection to the open-source community and the ability to help bring visibility to DPGs for discovery and contribution.

In 2021, GitHub completed the first year of their Skills-Based Volunteering program. This initiative was launched to engage GitHub staff and leverage their skills and expertise to help social sector organisations solve complex business and technical issues. This work

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culminated in the release of a guide for other companies to replicate their success. They also launched a public, open-source repository that will help create a pipeline for future DPGs. GitHub's Tech for Social Good team initiated research to better understand developer communities, priorities and capacities of open-source software relevant to social sectors in India, Kenya, Egypt, and Mexico. Findings from this research will help inform approaches for DPG development and deployment globally. An additional focus of Tech for Social Good was involvement in the MERL Center (Monitoring, Evaluation, Research, and Learning Center), a community that creates materials targeted to non-developers to help understand if, when, and how to use open-source technologies.

Government of Estonia

The Government of Estonia has been a trailblazer in government digital development with their 'Government as a Platform' concept, and they continue to create, support and share digital public goods. Their efforts have extended beyond their own borders through the Nordic Institute for Interoperability Solutions (NIIS), a non-profit which supports cross-border components of digital public infrastructure supported by the republics of Estonia, Finland and Iceland. NIIS also oversees the development and strategic management of X-Roads, a DPG and open-source software solution that provides unified and secure data exchange between organisations.

In September 2021, Estonia launched the Digital Testbed Framework, through which solutions developed by the public sector are piloted. The testbed gives access to the government's tech stack and proofs of concept for products and services. This showcases the potential of digital private-public cooperation, and provides opportunities for open-source solutions to be tested, shared and scaled.

Similarly, in 2021 Estonia made efforts to reduce government digital duplication by bringing all digital development within government under one ministry. This was coupled with an introduction of legislation that requires all publicly financed digital developments to be made open source. Collectively, these initiatives will help create mechanisms to support active open-source solutions while introducing new ways for them to be further developed and maintained.

Estonia is also a founding partner of the GovStack Initiative, which they joined to support open development of democratic digital societies, to share and reuse what is already there, and create new open digital solutions while at the same time.

Government of Finland

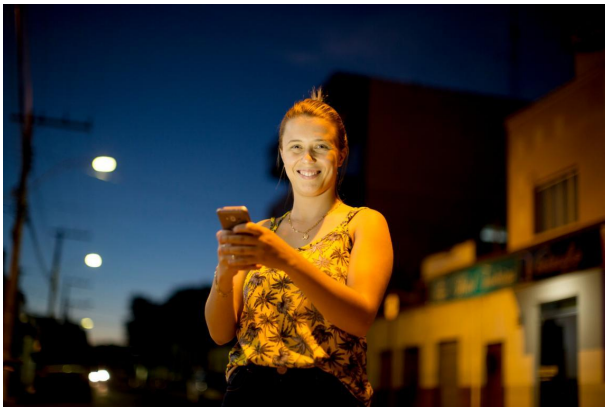
The Government of Finland has provided both indirect and direct support to digital public goods as part of promoting fair, inclusive and sustainable digital transformation globally. Since 2016, Finland has contributed annually to UNICEF's Venture Fund, which is emerging as an important pipeline for open-source technologies and DPGs. Their work also includes supporting the Office of the Secretary-General's Envoy on Technology in implementing the Secretary General's Roadmap for Digital Cooperation, strengthening the capacity of the United Nations to coordinate on matters related to digital technology, including digital public goods, and UN Global Pulse's work on DPGs for Maternal, Newborn and Child Health to strengthen the DPGA's work in this field and linked to the DPGA Health Community of Practice. This work is carried out by the UN Global Pulse Lab Finland.

Finland is also a developer of DPGs. Since 2013, Finland and Estonia have cooperated on X-Road, a DPG and OSS solution that provides

unified and secure data exchange between organisations. X-Road forms part of the core e-government infrastructure in both countries. Further development of X-Road is managed by the Nordic Institute of Interoperability Solutions (NIIS).

Government of Germany

The Government of Germany, through the Federal Ministry for Economic Cooperation and Development (BMZ) will be joining the Digital Public Goods Alliance as a board member beginning in 2022. This is, in part, in recognition of their already substantial contribution to the DPG ecosystem. In 2021 they contributed to sourcing EU-funded DPGs with potential for



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deployment as DPI, contributed to the Health CoP focusing on immunization delivery management, and are currently serving as co-chair of the GovStack CoP. They are also leaders through their ongoing support of the FAIR Forward Initiative, Artificial Intelligence for All, the #SmartDevelopmentFund which supports nine digital initiatives, and the GovStack Initiative in which they share best practices for the specifications of building blocks working together with different parties among others, MOSIP and Mojaloop, two DPGs.

They are also advancing a concept for a marketplace for digital public goods including the definition of a conceptual and technical certification mechanism of open "DPG building blocks". They contributed to the *Co-Develop: Digital Public Infrastructure for an Equitable Recovery* report authored by the Rockefeller Foundation, Norwegian Ministry of Foreign Affairs and the DPGA. They provide country technical support for health DPGs including DHIS2 and OpenSRP and provide funding and management to DPGs in the area of cyber security.

In 2022 they will publish reports related to AI in social protection during COVID 19. This will include defining minimum data protection standards for social protection using the Principles for Digital Development and Donor Investment Principles for the social protection sector, all of which can help strengthen relevant DPGs.

Their work stresses the need for common understanding, definitions and terminologies between DPGs, building blocks as well as GovStack components, and providing clear donor alignment within the development cooperation sphere in order to avoid redundant activities and make use of synergies instead.

Government of Norway

As the main coordinator of Norway's work on digital public goods, the Norwegian Agency for Development Cooperation (Norad) has been pivotal in not only undertaking DPG pathfinding activities which help inform implementations and deployments, but also as a funder and convener, greatly supported by the Norwegian Ministry of Foreign Affairs at the political level.

Norway's 2021 pathfinding efforts included steadily growing the number of translations for the Global Digital Library in partnership with

Association for the Development of Education in Africa (ADEA) and collaborating with governments on curriculum alignment; MOSIP pilots in the Philippines and Morocco (ongoing); and DHIS2 EMIS pilots in Eswatini, The Gambia, Uganda and a Sri Lanka DHIS2 pilot.

Norad provides funding to multilateral agencies related to the DPG agenda, with a new funding cycle beginning in early 2022; contributes direct funding for DPGs including DHIS2, MOSIP and a new funding agreement with OpenCRVS; and, via long-term Norwegian public funding commitments, directly supports the development of DPGs including the Global Digital Library and MET Norway. In addition, Norad has convened donors in partnership with the Rockefeller Foundation at the "Co-Develop: DPIs for an Equitable Recovery" event in August. Norad has also completed the first phase and started the second phase of a DPG Security Dependencies Report.

Norad has both continued existing engagements and initiatives under their DPG portfolio and expanded into new areas. This includes incorporating the DPGs in more areas of Norwegian development policy, as one of the key transformative aspects of DPGs is the way they change traditional partnerships and international development cooperation. DPGs can be developed anywhere, shared globally, and adapted to local contexts. Norway's experience in the past year has highlighted that new forms of partnerships and new types of collaboration are fostered, often in a more cost-effective way, by empowering local actors and strengthening local ownership and expertise. Finally, Norway strongly believes that donor collaboration in the DPG space has the potential to greatly increase results and generate very exciting synergies.

> *"New forms of partnerships and new types of collaboration are fostered, often in a more cost-effective way, by empowering local actors and strengthening local ownership and expertise."*

Norway is encouraged to see that digital public goods have become a major area of interest, thinking, investment and implementation globally – both on the international development agenda and beyond. A rapidly growing number of actors are involved in DPG initiatives in various ways, and the "business as usual" in both the development sector and among major technology actors is being disrupted. 2021 has marked a major changing point in the global approach to digital transformation, and DPGs have played an important role in this.

Government of Sierra Leone

Sierra Leone's Directorate of Science, Technology & Innovation (DSTI) has been, and continues to be, a leader in undertaking activities to support other low- and middle-income countries in implementing DPGs and sharing the lessons they've learned from their own developments and implementations. This includes a reporting tool on how to navigate, adopt, and implement DPGs in LMICs, and creating and managing new digital public goods including OpenG2P and Atlas. By implementing DPGs, Sierra Leone was able to save citizens a collective $1.94M in 2021 alone through the Government Services Platform which utilises USSD and SMS for service delivery. This particular program allowed parents, students, and children to check their national exam scores - a process which previously incurred a fee.

> *"By implementing DPGs, Sierra Leone was able to save citizens a collective $1.94M in 2021 alone through the Government Services Platform which utilises USSD and SMS for service delivery."*

Sierra Leone has shared lessons learned through their experiences, including the importance of seeking buy-in from government middle management at the outset of a project, and fostering an increased sense of ownership with accountability and incentives as part of the process. DSTI has learned that the risk adverse nature of government institutions must be factored in when exploring open-source options and DPGs. The implementation of DPGs must also include the creation and implementation of supporting open-source policies and processes. This ensures greater integration and interoperability capabilities, which are crucial for a successful rollout.

iSPIRT

India is a leader in digital public goods. iSPIRT, the Indian Software Product Industry Roundtable, is instrumental in this success. Over the last year, iSPIRT has contributed to many products and projects related to supporting digital public goods. In coordination with the DPGA' Secretariat, iSPIRT co-chaired the DPGA's Financial Inclusion Community of Practice which produced a report highlighting six digital public goods for their relevance to facilitating inclusive financial workflows at scale and enabling other solutions as DPIs.

In addition, iSPIRT hosted a number of important convenings that brought industry experts together to address critical issues that are relevant to the creation and sustainable management of DPGs. For example, in September iSPIRT convened senior policymakers to examine data empowerment techniques that protect privacy and encourage innovation which produced a white paper, which highlighted the importance of open standards to ensure all institutions have the same approach to consent and use it interoperably. They also hosted a virtual launch of the industry-wide Account Aggregator (AA) ecosystem which enables low-cost data sharing and limits friction between individuals and businesses. The event announced the participating major financial institutions and demonstrated the robust use cases of AA. It is a significant milestone for the AA framework for consented data access and sharing in the financial sector. You can access the official recording of the session here.

Finally, they have been championing work through the Open Credit Enablement Network, which creates APIs for interaction between lenders and loan service providers, and HealthStack with the objective of building the world's first Digital Health Nation with affordability and increased access.

New America

New America's Digital Impact and Governance Initiative (DIGI) collaborates with government partners, the technology sector, and civil society to advance civic solutions that address key public challenges. In the same way that public-private partnerships facilitate universal access to necessary infrastructure like electricity, water, and transportation, DIGI supports the development of sustainable digital public goods to strengthen access to foundational services such as identity validation, financial transactions, data sharing, and government systems. Their work has provided substantial thought leadership in regards to open source and government, including the 2020 publishing of *Building and Reusing Open Source Tools for Government* and continued throughout 2021 with additional writings including *Financing the Next Decade of Digital Public Goods*.

DPG Spotlight: Jamaica's use of two digital public goods in COVID-19 response

Over the last year, Jamaica, like the rest of the world, was in need of digital solutions that could be deployed in a short amount of time, with scalability and customisation features to tackle COVID-19. Through partnership with UNICEF - who, on behalf of the COVAX Global Facility, is leading the global vaccine procurement and supply operation to ensure equitable access to COVID-19 vaccines - they chose to implement two DPGs: CommCare and DIVOC.

CommCare is a digital platform, and digital public good, that enables secure and adjustable solutions to efficiently manage national vaccine roll-outs. CommCare allows users to rapidly configure and deploy mobile applications, and can track and support clients before, during, and after they are vaccinated. At the time, CommCare had already been working with WHO on frameworks and guidelines to ensure that datasets that were developed met international standards.

In March 2021, Jamaica received the first shipment of COVAX- procured vaccines. Only two months later, on June 14th, 2021, Jamaica launched its COVID-19 vaccination system, powered by CommCare. Following a two-week transition period, the system was handed over to the Government of Jamaica and fully integrated following a training period with local officials. Today, CommCare is on the frontline of Jamaica's vaccine roll out, providing real-time analytics to help monitor delivery, tracking rates of missed appointments, and ensuring critical populations are vaccinated first.

To complement the vaccination system, Jamaica, again in partnership with UNICEF, decided on Digital Infrastructure for Vaccination Open Credentialing (DIVOC). DIVOC, a DPG with a proven track record of adapting quickly, was developed in India and already implemented in the Philippines and Sri Lanka.

As the vaccination certificating component of India's CoWin, DIVOC has provided over 1 billion electronic vaccine certificates. By mid-December 2021, it is expected to be live in Jamaica. For this collaboration, DIVOC and CommCare use an API to automatically generate digital vaccine certificates following the WHO framework. UNICEF and WHO support global goods for COVID-19 response and recovery through their joint initiative, the COVID-19 Digital Health Centre of Excellence (DICE).

During this time, the Digital Public Good Alliance's Health Community of Practice (CoP), co-chaired by UNICEF, brought together experts to surface and aid in the discovery of DPGs that could be relevant to immunization delivery management. This CoP released a report highlighting 13 DPGs of relevance, including CommCare and DIVOC. "Had it not been for the CoP it would have been much harder to implement and review products. For us at UNICEF and for others that use the report it shows the credibility of the solutions." said Karin Källander, Senior Health Adviser at UNICEF.

Today, Jamaica is one of the few countries in Western Hemisphere to be using two connected digital public goods as part of its COVID-19 response. Attention to interoperability and ensuring that solutions can be customised to both local needs and international standards was the differentiator. Prior donor investments meant that not only were both CommCare and DIVOC available when needed, they were also scalable and customisable. Increasing the number and availability of digital public goods will help in future instances where rapid, global, and equitable responses are needed.

The Office of the Secretary-General's Envoy on Technology

The Office of the Secretary-General's Envoy on Technology (OSET) plays a foundational role in facilitating collaborations between the DPGA and other initiatives, and promoting work related to digital public goods to United Nations member states. In follow-up to the Secretary-General's Roadmap for Digital Cooperation and through the multistakeholder and interagency processes it coordinates, OSET facilitated the adoption of a resolution E/RES/2021/30 by the UN Economic and Social Council (ECOSOC) on better employing open-source technologies for sustainable development, which acknowledged the work of the DPGA.

Together with the DPGA, OSET organised two events during the 76th UN General Assembly High-Level Week, the first, From Open Software to Open Society: Digital public goods for inclusive digital and social transformation, convened in partnership with UNICEF and UNDP, highlighted the role DPGs can play in developing states. Representatives from India, Kyrgyzstan, The Philippines, Sierra Leone, Singapore, Switzerland, and Uzbekistan highlighted the potential of digital public goods as part of their digital transformation journey. The Second event, From Open Software to Open Culture: Opportunities and challenges of

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open source to support the United Nation mandate promoted the establishment of an Open-Source Programme Office (OSPO) within the UN OICT.

In 2022, OSET will be working to ensure DPGs are effectively deployed and utilised within the UN, as well as supporting promotion of DPGs and open-source technologies in implementing the Secretary-General's Roadmap and consultations leading to the proposed Global Digital Compact. In particular, OSET has identified that greater awareness and internal capacity building within the United Nations is essential. A basic understanding of open-source technologies and how they can be utilised to deliver more efficient and effective outcomes at both leadership and working levels and relevant capacity building is requisite for building a successful open-source strategy. OSET also works to cultivate a culture throughout the United Nations that embodies the principle of openness, transparency, collaboration, and inclusivity to fully seize the potentials and benefits of open-source technologies.

Omidyar Network

Omidyar Network, believes that digital technology can and should have a positive impact on society. They aspire to build a global technological ecosystem that reaches and works for everyone: One that balances innovation with responsibility, regardless of whether technology is deployed by individuals, companies, or governments.

Omidyar Network is working to make sure countries have the technical resources to build the digital infrastructure that is powering so much of the developed world—and to do it in a way that is cost-saving, open-sourced, and empowering to local entrepreneurs who will no longer have to be dependent on big technology companies.

In 2021, Omidyar Network helped to conceive the idea for and provide foundational funding toward the modular, open-source identity platform, MOSIP. National governments are currently implementing MOSIP at population scale in the Philippines and Morocco. Sri Lanka, Ethiopia, and Guinea have also signed agreements to adopt MOSIP. Omidyar Network has provided $7M to enable the design and implementation of MOSIP in 10 countries.

They also supported both the Edmund J. Safra Center for Ethics at Harvard University to evaluate the ethical considerations and guidelines for technologists, governments, and philanthropic donors involved in creating and employing digital public goods; and Public Digital to develop an Open-Source Software Capability Model for Governments and share learnings with the broader community.

Additionally, Omidyar Network's Senior Vice President of Programs, Michele Jawando moderated two events. First, the "Co-Develop" event on August 30, co-hosted by the Digital Public Goods Alliance, Norwegian Ministry of Foreign Affairs (Norad), and The Rockefeller Foundation. This event drew out pledges of funding and other support to MOSIP and Mojaloop (two of Omidyar Network's grantees), the health data exchange DHIS2, Digital Square, Digital Public Goods Alliance, technical assistance to implementing nations, research, and proposals for new funding structures to pool demand and resources from the public and private sectors. Second, was an event on September 20 during World Economic Forum's Sustainable Development Impact Summit regarding how public-private cooperation can help scale critical infrastructure such as digital identity, e-payments and data exchanges to accelerate digital inclusion and build competitive digital economies. In addition to the event, Omidyar Network collaborated with the World Economic Forum to produce a series of articles about the importance of digital public infrastructure.

In 2022, Omidyar Network will continue to advance its responsible technology work in the following areas as well as to explore emerging issues and opportunities: Fostering a Healthy Tech Culture and Responsible Innovation; Reshaping the Data Paradigm; Expanding Digital Public Infrastructure; Fighting Disinformation and Dangerous Speech; and Curbing Big Tech's Harmful Influence.

UNICEF Innovation/Romero

Public Digital

Public Digital helps governments build their digital capacity to enable better service delivery and improve the lives of their citizens. This is rooted in the belief that public service delivery shouldn't be a competition: all governments must deliver similar services to their citizens. As such, Public Digital has undertaken work that looks at how digital public goods and open source can help governments to share and reuse code effectively and responsibly without reinventing the wheel, and making the most of limited resources.

In 2021, Public Digital researched and wrote a guide for governments and funders, Open Source in Government: Creating the Conditions for Success, supported by the Omidyar Network. The guide aims to help governments use open-source software successfully – including digital public goods - while looking at the conditions that can help cultivate success in open-source adoption for governments.

Public Digital also directly supported governments around the world. In 2021 they widely promoted open source as a powerful lever for change by contributing presentations and thought leadership to: Canadian Institute of Citizen Centered Services, Forward50, the 2021 Digital Services Convening, and OpenForum Europe, and engaged on open technology for environmental sustainability at COP26.

The Rockefeller Foundation

The Rockefeller Foundation aims to improve lives and the planet, and unleash human potential, through innovation. They see DPGs as an opportunity to advance their goals in health, food, power, and economic opportunity. In 2021, they convened the fourth annual 17 Rooms global flagship process, which aimed to augment action, insight, and community across all 17 SDGs. The Rockefeller Foundation led the 17 Rooms process alongside The Brookings Institution and specifically helped co-facilitate Room 9 on infrastructure, industrialisation and innovation with the DPGA, which focused on how digital public goods can enable innovation and cross-sectoral collaboration for pandemic response, economic recovery, future pandemic preparedness, and resilience at scale. An outcome of the effort was the development and socialisation of a guide to utilise digital public goods for digital cooperation, SDG attainment, and innovation while also coordinating resources to implement "good digital public infrastructure" at the country level.

Additionally, with the DPGA and the Government of Norway, The Rockefeller Foundation spent mid-2021 convening a group of bilateral and philanthropic donors on the topic of better coordinated digital public

infrastructure (DPI) investment globally. Joined by the Bill & Melinda Gates Foundation, the Government of Germany, Omidyar Network, Nandan Nilekani and others, the group collectively represented hundreds of millions of dollars annually in support of DPI. The group crafted a vision for how cooperation can accelerate the growth of good DPI in low- and middle-income countries and launched that effort at a ministerial-level virtual event, called "Co-Develop: Digital Public Infrastructure for an Equitable Recovery," which focused on a call for good DPI investment globally as the world recovers from the COVID-19 pandemic. Outcomes and recommendations on next steps can be found here.

The Rockefeller Foundation has invested in grantmaking and advisory efforts for digital public goods such as Mojaloop and is also offering seed funding and advisory services to the upcoming Co-Develop Fund. The Fund will drive action on: a vision for DPI as a whole, backed by practice, research, and evaluation; a global commons based on digital public goods; safeguards for inclusion, trust, competition, security, and privacy; tools that use data in DPI for public value and private empowerment; private and public capacity, particularly in implementing countries; and silo-busting, built-for-purpose coordination, funding, and financing. The Fund will officially launch in early 2022 with targeted grantmaking in the coming months.

Thoughtworks

Thoughtworks is a global technology consultancy that integrates strategy, design and engineering to drive digital innovation. Investing in digital public goods allows Thoughtworks to achieve impact at scale in multiple geographies and citizen services. They have long been committed to open source as one way to create more equitable outcomes and bring more diversity to the tech creation process.

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In 2021 Thoughtworks provided significant support to open source digital solutions that can play a critical role in advancing the sustainable development goals. Some of these digital solutions include: Bahmni, an open-source Hospital Management System and EMR, and a recognised DPG; Cloud Carbon Footprint, an open-source calculator that estimates cloud emissions and provides recommendations to reduce carbon and costs; Vakyaansh, to promote open-source Speech to Text in Indic languages; openCEM, a free tool for modeling Australia's energy market; BharatSIM, an open-source simulation framework which allows researchers to model emerging phenomena, informing relevant policy interventions; Epirust, an open-source, fast agent-based simulation framework to model epidemics such as smallpox, h1n1 and COVID-19 in cities; and Thirty Meter Telescope (TMT), one of the largest telescopes ever to be built, providing new observational opportunities across astronomy and astrophysics. They also work with additional projects that are planning to open source and have the potential to become DPGs.

DPG Spotlight: Oky, the world's first digital menstruation app co-created with and for girls, became a DPG in 2021. The app provides evidence-based information about periods, puberty, and reproductive health in fun, creative and positive ways, straight into girls' hands. Oky is tailored to girls' lives, language, and digital realities and is currently live in Mongolia and Indonesia, with more markets coming soon. Oky helps spark the digital ecosystem to bridge the gender digital divide.

UN Global Pulse

Secretary-General's innovation network, UN Global Pulse, supports the advancement of digital public goods (DPGs). This year, they launched a DPGs in MNCH initiative, supported by the Government of Finland. Initial activities will focus on identifying DPGs that support improvements in MNCH, understanding the factors that have made them successful, and the challenges they face. This MNCH initiative will increase visibility of DPGs in this space and encourage innovators to consider nominating their products to the DPG Registry.

While the MNCH initiative is in the early stages, UN Global Pulse has identified co-chairs (UNICEF and Finland Ministry of Foreign Affairs) to steer a technical group that will convene in 2022. The group will concentrate on the factors that support scaling and sustainability of digital innovation, using MNCH as a practical example.

UNDP

UNDP joined as members of the DPGA in September of 2021. Upon joining, they made commitments which are on track to be completed by the end of the year including: working with the Digital Impact Alliance to undertake deep-dive research into DPGs for UNDP thematic areas such as climate change, gender, inclusive growth and more; developing and contributing to the global dialogue on DPG implementation by accelerating discussions and lessons from countries, especially low-middle income countries; assessing more than 30 products from Bangladesh, India, the Africa region and the global UNDP Digital X Accelerator to identify potential DPGs; and empowering the UNDP global network of staff and local partners through learning sessions with a range of partners such as Harvard University's Edmond J. Safra Center for Ethics and MOSIP.

UNDP has deep roots and experience working with open-source solutions dating back to the 2014/2015 West Africa ebola crisis, leading to the creation of OpenG2P. Similarly, in 2015, UNDP started building a digital vaccine management system mobilising thousands of public health center and health workers across India, which became the foundation of the Government of India's delivery of 1.2 billion vaccinations during the Covid-19 crisis. And, across UNDP there are hundreds of digital solutions that are being considered for DPG recognition.

UNICEF

As a co-founding member of the DPGA, UNICEF has made significant contributions to the advancements of digital public goods.

This past year, the UNICEF Office of Innovation (OOI) created the foundational tools needed to assess whether a digital solution can be considered a DPG. This included the DPG eligibility tool, which serves as a quick point of entry for digital solutions to determine their potential to be considered a DPG, the DPG submission form, which collates important

information used to assess whether a project meets the DPG Standard, and the DPG map which is an interactive visualisation of the development and deployment of DPGs around the globe.

Recognising the potential of crowdsourcing as a tool to review DPG eligibility, OOI launched a community crowdsourcing pilot in early 2021. This pilot reviewed 10 DPG nominees. 95 valid submissions by 76 unique participants were received.

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The team also completed work on a guide for accelerators looking to support companies developing potential DPGs and an operational toolkit for governments to release in 2022. The team has also penned a case for private investment into DPGs to inform increased engagement of private capital players in investing in DPGs. These resources will help guide both businesses and governments looking to explore the potential of digital public goods.

The UNICEF Venture Fund has been making frontier technology investments and mobilising digital resources for DPGs. In 2020-2021, the Venture Fund graduated 25 companies and on-boarded 8 new blockchain companies, bringing the total investment number to 113 solutions across 67 countries. The Fund also announced 8 new startups developing open-source, blockchain-based solutions toward greater financial inclusion.

UNICEF also leads pathfinding pilots with AEDES in The Philippines, OpenG2P in Sierra Leone, with new DPGs and DPG nominees in Ghana, the Global Digital Library in the OECS, Accessible Kazakhstan, the Ministry of Education in Kyrgyzstan, the Ministry of Digital Economy and Entrepreneurship in Jordan, Agence Nationale pour la Société de l'Information (ANSI) in Niger, the Ministry of Education and Training in Vietnam and the Ministry of Education for Uzbekistan.

In addition, UNICEF's Health team co-chaired the Digital Public Goods Alliance's Health Community of Practice this year. They are also creating global data and digital implementation guidelines, standardising data and data use for health; have launched the UNICEF technology planning, procurement and deployment playbook in October; and are stewarding both the Digital Centre of Excellence (DCOE) and the UNICEF/WHO Digital Health Centre of Excellence (DICE), which launched in April. Their work highlights the importance of pre-emergency investments in digital public goods. Many organisations, including UNICEF, were prepared to rapidly support the governments during the pandemic thanks to earlier investments in digital public good platforms like DHIS2 and CommCare, which had already been customised for COVID-19 needs, and only required local configuration before country deployment. Change management in the health sector can drive acceptance and adoption of digital tools, especially amongst health workers. And finally, there is a critical need to foster public-private partnerships as a means of driving digital transformation and the use of digital public goods in emergency preparedness and response. Their work in Jamaica in particular, is further highlighted below.

DPG Spotlight: Sri Lanka's implementation of DHIS2 tracker for COVID-19

In Sri Lanka, the first suspected case of the novel coronavirus was registered on 27 January 2020. Within just two days, following a request from the country's Ministry of Health, a DHIS2 tracker for COVID-19 was created by local developers that focused on the registration and tracking of travellers arriving from regions with a high risk of COVID-19 infection. It was deployed at Sri Lanka's airports just days later.

Sri Lanka is using DHIS2, an open-source health information management system and a digital public good. Globally, DHIS2 is used in 73 countries which account for 30% of the world's population.

After developing the DHIS2 tracker Sri Lanka shared their user guides with the global DHIS2 COVID-19 response team. The tracker is now integrated into openly licensed training material publicly available for worldwide use. An application version of the tracker has since been released for global adoption allowing other countries using DHIS2 to more adequately track the virus. It is now operational in 38 countries and under development in 14 more.

World Bank

The Identification for Development (ID4D) and Digitizing Government to Person Payments (G2Px) initiatives are two global, multi-sectoral initiatives of the World Bank Group. The two initiatives support progress towards trusted and inclusive identification systems and digitization of G2P programs respectively, with broader goals of promoting improved access to service delivery, financial and social inclusion and women's empowerment. To achieve these outcomes, ID4D and G2Px support clients with advice and financing in over 50 countries, advances thought leadership on the topics of digital identification and G2P digitization and promotes the development and deployment of global public goods, such as digital identification- and digital payment solutions based on open standards and open-source software. Digital public goods play a vital role for ensuring operational and financial sustainability of identification and payments platforms and are critical for ensuring continued innovation and adaptability to emerging needs from individuals, governments, and the private sector.

The ID4D initiative has raised awareness about digital public goods for identification among policymakers and ID practitioners across the globe through learning events, peer-to-peer knowledge exchanges, and ongoing dialogue with country counterparts. Multiple low- and middle-income countries are currently piloting or implementing open standards based- and open-source solutions for their foundational identification systems, with ID4D technical support. Guidance regarding the deployment of digital public goods has also been captured via ID4D's analytic work and tools, such as the ID4D Practitioner's Guide, the Catalog of Technical Standards for Digital Identification Systems, and the Procurement Guide and Checklist for Digital Identification Systems. This complements the initiative's efforts to promote global alignment with the Principles on Identification for Sustainable Development and to support the integration of good practices for inclusion, people-centric design, and data protection and privacy into the design and implementation of ID systems.

The G2Px initiative aims to develop guidance, share knowledge and support implementation of a cross-sectoral approach to digitize government-to-person payments that can lead to long term development outcomes. It is supporting technical assistance in 34 countries to improve their G2P architectures, including on how to strengthen their shared and interoperable infrastructure (e.g. across administrative databases, social program management information systems, public financial management systems and the national payments systems) and designing recipient centric G2P programs as a use case for digital public platforms. In addition to country implementations, the G2Px initiative has also developed a range of analytics to advance understanding and share knowledge on digitization of G2P programs. For example, it has supported the first cross-country data collection effort on G2P payment methods that will help inform our understanding of where digitization of government payments stands and where are the opportunities going forward.

03 Looking Ahead to 2022

2022 Outlook

The concept of open source, and the idea that how technology is developed matters, isn't new. Digital public goods (DPGs) can facilitate alignment and collaboration within the landscape of open-source technology. They represent a subset of this landscape that has certain minimum safeguards in place to avoid and mitigate harm and demonstrated relevance for accelerating the attainment of the sustainable development goals. DPGs bring stakeholders together in new ways to solve problems that often cut across traditional sectors and institutional silos. For this reason, digital public goods are highlighted by the UN Secretary-General in his 2020 Roadmap for Digital Cooperation as important for creating a more equitable world.

Against the backdrop of the COVID-19 pandemic, there has been rapidly growing support for the idea of digital public goods, driven by a recognition that the process of digital transformation urgently needs effective, easily adoptable and adaptable, open tools. Government institutions have shared technologies that have worked in their own country contexts to rapidly help other countries address similar challenges and make necessary localisations.

Through coordinated and aligned activities, individual experts, multilateral organisations, governments, private sector companies and civil society are helping to achieve the sustainable development goals by facilitating the discovery, development, use of, and investment in digital public goods - the mission of the Digital Public Goods Alliance. As this report has shown, there is increasing momentum across the DPG ecosystem and unprecedented collaboration. As we look forward to 2022 and beyond, we hope to build on this momentum, invite more stakeholders to be part of the movement, and to evolve the diversity and strength of the ecosystem and the DPGA. It will take a concerted effort across geographies, institutions and sectors to achieve these goals, but together we are greater than the sum of our parts.

UNICEF Cambodia/2020/Antoine Raab


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